CLAIMS

What is claimed is:

5   1.   A method for providing efficient use of a transmit engine in

transmitting packet directing information, said method comprising the steps of:

a)   loading a first memory with packet directing information, said first

memory adapted to provide information to drive a transmit engine to direct

packets therefrom;

10   b)   provided said loading of said step a) is completed, marking said

first memory as busy and directing said packets according to said packet

directing information; and

c)   provided said first memory is marked as busy, directing additional

packet directing information to a second memory such that said second

15   memory is adapted to be loaded with said additional packet directing

information without interrupting said first memory, said second memory

adapted to provide information to drive said transmit engine to direct packets

therefrom.

20   2.   The method as recited in Claim 1 further comprising the steps of:

d)   provided said first memory has completed directing packets to

hardware according to said packet directing information, marking said first

memory as free;

3COM-3478.BCG.US.P/JPW/MJB

e)   provided said loading of said step c) is completed and said first

memory is marked as free, marking said second memory as busy and

directing said packets according to said additional packet directing information.

5   3.   The method as recited in Claim 2 further comprising the step of:

f)   provided said second memory is marked as busy, directing

additional packet directing information to said first memory such that said first

memory is adapted to be loaded with said additional packet directing

information without interrupting said second memory.

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4.   The method as recited in Claim 3 further comprising a third

memory, said third memory adapted to be loaded with said additional packet

directing information without interrupting said second memory, said third

memory adapted to provide information to drive said transmit engine to direct

15   said packets to hardware.

5.   The method as recited in Claim 1 wherein a primary memory

comprises said first memory and said second memory such that said first

memory and said second memory are partitioned locations of said primary

20   memory.

6.   The method as recited in Claim 5 wherein said primary memory further comprises a third memory such that said third memory is a partitioned location of said primary memory.

5   7.   The method as recited in Claim 1 wherein said first memory and said second memory are linked together to operate as a single memory.

8.   A computer system comprising:

a bus;

10   a memory unit coupled to said bus; and

a processor coupled to said bus, said processor for executing a method for providing efficient use of a transmit engine in transmitting packet directing information, said method comprising the steps of:

a)   loading a first memory with packet directing information, said first
15   memory adapted to provide information to drive a transmit engine to direct packets therefrom;

b)   provided said loading of said step a) is completed, marking said first memory as busy and directing said packets according to said packet directing information; and

20   c)   provided said first memory is marked as busy, directing additional packet directing information to a second memory such that said second memory is adapted to be loaded with said additional packet directing information without interrupting said first memory, said second memory

adapted to provide information to drive said transmit engine to direct packets

therefrom.

9. The computer system as recited in Claim 8 wherein said

5 processor performs said method for providing efficient use of a transmit engine

in transmitting packet directing information, said method further comprising the

steps of:

d) provided said first memory has completed directing packets to

hardware according to said packet directing information, marking said first

10 memory as free;

e) provided said loading of said step c) is completed and said first

memory is marked as free, marking said second memory as busy and

directing said packets according to said additional packet directing information.

15 10. The computer system as recited in Claim 9 wherein said

processor performs said method for providing efficient use of a transmit engine

in transmitting packet directing information, said method further comprising the

step of:

f) provided said second memory is marked as busy, directing

20 additional packet directing information to said first memory such that said first

memory is adapted to be loaded with said additional packet directing

information without interrupting said second memory.

3COM-3478.BCG.US.P/JPW/MJB

11.   The computer system as recited in Claim 10 further comprising a
third memory, said third memory adapted to be loaded with said additional
packet directing information without interrupting said second memory, said
third memory adapted to provide information to drive said transmit engine to

5   direct said packets to hardware.

12.   The computer system as recited in Claim 8 wherein said memory
unit comprises said first memory and said second memory such that said first
memory and said second memory are partitioned locations of said memory

10   unit.

13.   The method as recited in Claim 12 wherein said memory unit
further comprises a third memory such that said third memory is a partitioned
location of said memory unit.

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14.   The method as recited in Claim 8 wherein said first memory and
said second memory are linked together to operate as a single memory.

15.   A computer-usable medium having computer readable program

20   code embodied therein for causing a computer system to perform the steps of:

a)   loading a first memory with packet directing information, said first
memory adapted to provide information to drive a transmit engine to direct
packets therefrom;

b) provided said loading of said step a) is completed, marking said

first memory as busy and directing said packets according to said packet

directing information; and

c) provided said first memory is marked as busy, directing additional

5 packet directing information to a second memory such that said second

memory is adapted to be loaded with said additional packet directing

information without interrupting said first memory, said second memory

adapted to provide information to drive said transmit engine to direct packets

therefrom.

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16. The computer-usable medium as recited in Claim 15 wherein

said computer readable program code embodied therein for causes a

computer system to perform the steps of:

d) provided said first memory has completed directing packets to

15 hardware according to said packet directing information, marking said first

memory as free;

e) provided said loading of said step c) is completed and said first

memory is marked as free, marking said second memory as busy and

directing said packets according to said additional packet directing information.

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17. The computer-usable medium as recited in Claim 16 wherein

said computer readable program code embodied therein for causes a

computer system to perform the step of:

3COM-3478.BCG.US.P/JPW/MJB

f)   provided said second memory is marked as busy, directing

additional packet directing information to said first memory such that said first

memory is adapted to be loaded with said additional packet directing

information without interrupting said second memory.

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18.   The computer-usable medium as recited in Claim 17 further

comprising a third memory, said third memory adapted to be loaded with said

additional packet directing information without interrupting said second

memory, said third memory adapted to provide information to drive said

10   transmit engine to direct said packets to hardware.

19.   The computer-usable medium as recited in Claim 16 wherein a

primary memory comprises said first memory and said second memory such

that said first memory and said second memory are partitioned locations of

15   said primary memory.

20.   The computer-usable medium as recited in Claim 19 wherein

said primary memory further comprises a third memory such that said third

memory is a partitioned location of said primary memory.

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21.   The computer-usable medium as recited in Claim 15 wherein

said first memory and said second memory are linked together to operate as a

single memory.

3COM-3478.BCG.US.P/JPW/MJB

22.   A method for providing efficient use of a transmit engine in

transmitting packet directing information, said method comprising the steps of:

a)   loading a first memory with packet directing information, said first

5   memory adapted to provide information to drive a transmit engine to direct

packets therefrom, said first memory residing in a partitioned location of a

primary memory;

b)   provided said loading of said step a) is completed, marking said

first memory as busy and directing said packets according to said packet

10   directing information;

c)   provided said first memory is marked as busy, directing additional

packet directing information to a second memory such that said second

memory is adapted to be loaded with said additional packet directing

information without interrupting said first memory, said second memory

15   adapted to provide information to drive said transmit engine to direct packets

therefrom, said second memory residing in a partitioned location of said

primary memory;

d)   provided said first memory has completed directing packets to

hardware according to said packet directing information, marking said first

20   memory as free;

e)   provided said loading of said step c) is completed and said first

memory is marked as free, marking said second memory as busy and

directing said packets according to said additional packet directing information; and

    f)   provided said second memory is marked as busy, directing additional packet directing information to said first memory such that said first memory is adapted to be loaded with said additional packet directing information without interrupting said second memory.

23.   The method as recited in Claim 22 further comprising a third memory, said third memory adapted to be loaded with said additional packet directing information without interrupting said second memory, said third memory adapted to provide information to drive said transmit engine to direct said packets to hardware.

24.   The method as recited in Claim 23 wherein said primary memory further comprises a third memory such that said third memory is a partitioned location of said primary memory

25.   The method as recited in Claim 22 wherein said first memory and said second memory are linked together to operate as a single memory.